

CLAIMS

1. A shadow mask material characterized by containing 0.0001 to 0.1% by weight of Ti and not more than 0.003% by weight of C in its composition, the balance thereof being Fe and unavoidable impurities.
2. A shadow mask material characterized by containing not more than 0.003% by weight of C, not more than 0.03% by weight of Si, 0.1 to 0.5% by weight of Mn, not more than 0.02% by weight of P, not more than 0.02% by weight of S, 0.01 to 0.07% by weight of Al, not more than 0.0040% by weight of N, not more than 0.01% by weight of B, not more than 0.1% by weight of Nb and 0.0001 to 0.1% by weight of Ti in its composition, the balance thereof being Fe and unavoidable impurities.
3. A process for producing a shadow mask material characterized by hot rolling a steel slab containing not more than 0.004% by weight of C and 0.0001 to 0.1% by weight of Ti in its composition, the balance thereof being Fe and unavoidable impurities, pickling a hot rolled product, cold rolling a pickled product, subjecting a cold rolled product to continuous or box annealing to reduce its carbon content to not more than 0.003% by weight and subjecting it to secondary cold rolling at a draft of 20 to 92%.
4. A process for producing a shadow mask material characterized by hot rolling a steel slab containing not more

than 0.004% by weight of C, not more than 0.03% by weight of Si, 0.1 to 0.5% by weight of Mn, not more than 0.02% by weight of P, not more than 0.02% by weight of S, 0.01 to 0.07% by weight of Al, not more than 0.0040% by weight of N, not more than 0.01% by weight of B, less than 0.01% by weight of Nb and 0.0001 to 0.1% by weight of Ti in its composition, the balance thereof being Fe and unavoidable impurities, pickling a hot rolled product, cold rolling a pickled product, subjecting a cold rolled product to continuous or box annealing to reduce its carbon content to not more than 0.003% by weight and subjecting it to secondary cold rolling at a draft of 20 to 92%.

5. A process for producing a shadow mask material characterized by hot rolling a steel slab containing not more than 0.004% by weight of C, not more than 0.03% by weight of Si, 0.1 to 0.5% by weight of Mn, not more than 0.02% by weight of P, not more than 0.02% by weight of S, 0.01 to 0.07% by weight of Al, not more than 0.0040% by weight of N, not more than 0.01% by weight of B, 0.01 to 0.1% by weight of Nb and 0.0001 to 0.1% by weight of Ti in its composition, the balance thereof being Fe and unavoidable impurities, pickling a hot rolled product, cold rolling a pickled product, subjecting a cold rolled product to continuous or box annealing to reduce its carbon content to not more than 0.003% by weight and subjecting it to secondary cold rolling at a draft of 70% or less.

6. A shadow mask formed from a shadow mask material as set

forth in claim 1 or 2.

7. A shadow mask manufactured by employing a process for producing a shadow mask material as set forth in any of claims 3 to 5.

8. A picture tube having incorporated therein a shadow mask as set forth in claim 6 or 7.